

Appl. No. 09/767,726
Amdt. Dated July 9, 2004
Reply to Office action of March 10, 2004
Attorney Docket No. P12382/027544-011
EUS/J/P/04-6156

Listing of Claims:

1. (Currently Amended) An arrangement for processing data in a telecommunications network, ~~comprising~~ including one or more network elements, and operational support systems, said arrangement comprising:

~~characterized in that the arrangement further comprises~~

a data processing network element, ~~said data processing element~~ comprising a data processing application, said data processing application including a plurality of data processing components, wherein the network elements produce event data and deliver said data as input signal data to the data processing network element, and

said data processing network element further comprising a component-link-up-configuration file for linking one or more said data processing components for one or more said network elements for generating different data to each of said operation support systems;

the data processing network element processes the inputted signal data, generates an output signal data, and forwards said output signal data to the operational support systems using said linked data processing components, ~~the arrangement being further characterized in that the plurality of data processing components of the data processing application have a generic component interface and that the arrangement has a flexible architecture for combining the data processing components together, where the data processing components are linked together at a startup time of the telecommunications data processing arrangement.~~

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2. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that at the startup-time of the data processing arrangement, a component link-up configuration file is processed, which dictates an internal build-up of the data processing components within the data processing arrangement.

3. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that the data processing components are dynamically rearranged or linked together at a run-time of the telecommunications data processing arrangement while continuing to process incoming input.

4. (Currently Amended) A telecommunications data processing arrangement according to claim 3, ~~characterized in~~ wherein that there is an external signal sent to the telecommunications data processing arrangement when a component link-up configuration file needs to be re-read and data processing components re-linked.

5. (Cancelled)

6. (Currently Amended) A telecommunications data processing arrangement according to claim ~~5~~, ~~characterized in~~ 1 wherein that the data processing components are listed in one or more component galleries based on a component name.

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7. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that the validity of a component link-up is checked based on properties of the components in question.

8. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that the data processing network element is co-located with one network element.

9. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that the data processing network element ~~has-comprises:~~

a database, into which an incoming input is stored until it is processed,

~~a configuration file, and~~

a wherein said data processing application for ~~processing~~ processes the incoming input from the database and information from the configuration file of the application, ~~generating-an~~ generates the output signal, and ~~forwarding forwards~~ said output signal to the operational support system applications.

10. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that in the arrangement there are three types of components:

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producer data processing components, which communicate with an external entity, are for receiving input, and which produce data and forward said data to producer/consumer data processing components,

producer/consumer data processing components, which consume internal system data, produce a transformed form of said data, and forward said data to consumer data processing components,

consumer data processing components, which communicate with an external entity for delivery of the output data.

11. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that the generic data processing component interface consists of adapters that interface with the different data processing components and accomplish a connection between them.

12. (Currently Amended) A telecommunications data processing arrangement according to claim 11, ~~characterized in~~ wherein that the adapters can cross boundaries between process and machines when necessary.

13. (Currently Amended) A telecommunications data processing arrangement according to claim 11, ~~characterized in~~ wherein that the generic data processing component interface further comprises a configuration change support arrangement, which prevents old type of input data from mixing with new type of data.

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14. (Currently Amended) A telecommunications data processing arrangement according to claim 11, ~~characterized in~~ wherein that the generic data processing component interface further comprises a synchronization support arrangement, which sends a signal to a component producing the input signal data, when a component cannot handle a data-rate of said input signal data.

15. (Currently Amended) A telecommunications data processing arrangement according to claim 11, ~~characterized in~~ wherein that the generic data processing component interface further comprises a check/back-up support arrangement, in which every data processing component registers with a checkpoint component and feeds said checkpoint component on a regular basis with information stating which data said data processing component has processed and safely passed on to a next component.

16. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that data processing software components are located in a same process on a same computer.

17. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that data processing software components are located in multiple processes on a same computer.

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18. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that data processing software components are located in multiple processes on multiple computers.

19. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that different data processing components are combined together to build new data processing component clusters.

20. (Currently Amended) A telecommunications data processing arrangement according to claim 19, ~~characterized in~~ wherein that a data processing component cluster is multiple levels deep.

21. (Currently Amended) A telecommunications data processing arrangement according to claim 20, ~~characterized in~~ wherein that a data processing component cluster contains other component clusters.

22. (Currently Amended) A telecommunications data processing arrangement according to claim 1, ~~characterized in~~ wherein that the data processing components having a generic component interface are made part of a reusable component library.

23. (Currently Amended) A method for setting up a telecommunications data processing arrangement in a telecommunications network, where network elements produce event data used by different operational support systems, ~~characterized in~~

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wherein that said arrangement further comprises a data processing network element for processing input data from the network elements, generating an output data, and forwarding said output data to the operational support systems, in which a flexible architecture between a plurality of data processing components associated with said data processing network element, having a generic component interface, ~~is set up by~~ comprising the steps of:

exporting properties of available data processing components within the telecommunications data processing arrangement, by

parsing a configuration file of the telecommunications data processing arrangement, and by

linking the data processing components together at a startup-time of the telecommunications data processing arrangement to establish a component link for handling said input data and for outputting said output data for each of said operational support systems.

24. (Currently Amended) A method according to claim 23, ~~characterized in~~ wherein that at the startup-time of the data processing arrangement there is processed a component link-up configuration file, which dictates an internal build-up of the data processing components within the data processing arrangement.

25. (Currently Amended) A method according to claim 23, ~~characterized in~~ wherein that the data processing components are re-arranged or linked together at a

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run-time of the telecommunications data processing arrangement while continuing to process incoming input.

26. (Currently Amended) A method according to claim 25, ~~characterized in~~ wherein that there is an external signal sent to the telecommunications data processing arrangement when the component link-up configuration file needs to be re-read.

27. (Currently Amended) A method according to claim 23, ~~characterized in~~ wherein that the data processing components are listed in one or more component galleries based on the name of said component.

28. (Currently Amended) A method according to claim 23, ~~characterized in~~ wherein that the validity of a component link-up is checked based on the properties of the data processing components in question.

29. (Currently Amended) A method according to claim 23, ~~characterized in~~ wherein that the component link-up configuration file is specified in a specially defined language.

30. (Currently Amended) A method according to claim 23, ~~characterized in~~ wherein that different data processing components are combined together to build new data processing component clusters.

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31. (Currently Amended) A method according to claim 30, ~~characterized in~~
wherein that a data processing component cluster is multiple levels deep.

32. (Currently Amended) A method according to claim 31, ~~characterized in~~
wherein that a data processing component cluster contains other component clusters.

33. (Currently Amended) A method according to claim 23, ~~characterized in~~
wherein that the data processing components having a generic component interface are
made part of a reusable component library.